

ABSTRACT

An optical device includes: a collimator; at least one anamorphic pair of prisms optically coupled to the collimator; a diffraction grating optically coupled to the at least one anamorphic pair of prisms at a side opposite to the collimator; and a focusing lens optically coupled to the diffraction grating. The anamorphic pair of prisms permits light incident upon the diffraction grating to be relatively narrow in a dimension perpendicular to the dispersive direction of the grating so that the grating can produce high spectral resolution while preserving compact system size and simplicity.

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